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Plasma etching apparatus.

(57) A plasma etching apparatus comprising a susceptor (12, 14) for holding a semiconductive wafer, a cooling jacket (20) having a coolant (21) of a large cooling capacity and capable of quickly cooling said susceptor (12, 14) to an intended low temperature, a process chamber (10a) enclosing the susceptor (12, 14) and the cooling jacket (20), a gas discharging mechanism (34, 36) for evacuating the process chamber (10a), an insulating member (16) inter-

posed between the susceptor (12, 14) and the cooling jacket (20), a gas supply device (71, 80) for supplying gas to an O-ring holding groove (51, 53, 55) arranged on the interface regions (59) of the susceptor (12, 14), the insulating member (16) and the cooling section (20) and a pressure control mechanism (70) for controlling the pressure of the supplied gas.

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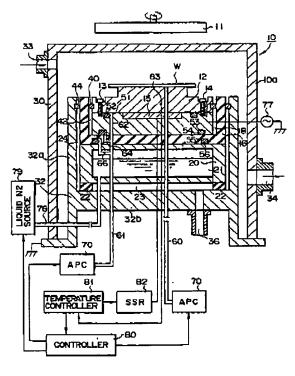


FIG.



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		RED TO BE RELEVANT	0-4	CLASSIFICATION OF THE
Category	Citation of document with indicat of relevant passage		Relevant to chim	APPLICATION (Int. CL5)
A	DATABASE WPIL Week 8949, Derwent Publications L AN 89-359386 & JP-A-1 268 030 (HITA * abstract * & US-A-5 085 750 (SORA) * column 3, line 19 - figure 1 *	CHI) DKA)	1,2	HO1J37/32 HO1L21/00
A	EP-A-0 339 580 (APPLIE * column 16, line 9 - figure 7 *	D MATERIALS INC) column 18, line 5:	1	
				TECHNICAL FIELDS SEARCHED (Int. Cl.5) HO1L HO1J
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Place of search THE HAGUE		28 SEPTEMBER 1992		BOLDER G.
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